AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. **(currently amended)** A program and system information protocol (PSIP) converter for selectively receiving a digital terrestrial broadcasting transport stream (TS) or a digital satellite broadcasting TS, converting them into a corresponding digital cable broadcasting TS, and outputting the same, comprising:

a protocol data extractor for demultiplexing the terrestrial broadcasting TS or the satellite broadcasting TS, and extracting audio/video (A/V) data and PSIP/PSI (program specific information) data or A/V data and SI (system information)/PSI data from the terrestrial broadcasting TS~~, and extracting A/V data and SI (system information)/PSI data from~~ or the satellite broadcasting TS, respectively;

a protocol data converter for converting the ~~using the~~ PSIP/PSI data or the SI/PSI data extracted by the protocol data extractor~~, and generating~~ into PSIP/PSI data of a corresponding digital cable television broadcasting standard;

a protocol data inserter for inserting the digital cable television broadcasting standard PSIP/PSI data generated by the protocol data converter into the A/V data extracted by the protocol data extractor through TS multiplexing, and generating a digital cable broadcasting TS; and

a system controller for checking states of the protocol data extractor, the protocol data converter and the protocol data inserter, and controlling their operation.

2. (original) The PSIP converter of claim 1, further comprising:

a TS receiver for receiving the terrestrial broadcasting TS or the satellite broadcasting TS, and transmitting the same to the protocol data extractor;

a TS transmitter for outputting the digital cable broadcasting TS generated by the protocol data inserter to the outside; and

a user interface for receiving information and control data needed for generating the PSIP/PSI data of the digital cable television broadcasting standard.

3. (previously presented) The PSIP converter of claim 1, wherein the protocol data converter comprises:

a table data manager for receiving the terrestrial broadcasting PSIP/PSI data or the satellite broadcasting SI/PSI data from the protocol data extractor, splitting them according to tables corresponding to the PSIP or the SI and the PSI, and extracting data for generating the digital cable broadcasting PSIP/PSI tables;

a common protocol data manager for using the data extracted by the table data manager, the data input by a system manager through the user interface, and the data stored in a database to configure data needed for generating the digital cable broadcasting PSIP/PSI tables;

a scheduler for outputting control signals corresponding to each table generation period of the digital cable broadcasting PSIP/PSI; and

a PSIP/PSI table generator for generating the digital cable broadcasting PSIP/PSI table by using the data input by the common protocol data manager according to the control signal output by the scheduler, and outputting the same to the protocol data inserter.

4. (original) The PSIP converter of claim 3, wherein the PSIP/PSI table generator transmits the digital cable broadcasting PSIP data to a PSIP server through a predetermined network so that the digital cable broadcasting PSIP data are included in the digital cable SI data and transmitted to a subscriber, the PSIP server transmitting digital cable SI data to the subscriber through an out-of-band channel.

5. (original) The PSIP converter of claim 3, further comprising:

a TS data receiver for receiving the terrestrial broadcasting PSIP/PSI data or the satellite broadcasting SI/PSI data from the protocol data extractor; and

a TS packet data generator for configuring the digital cable broadcasting PSIP/PSI table generated by the PSIP/PSI table generator into MPEG-2 TS packets, and transmitting them to the protocol data inserter.

6. **(currently amended)** A program and system information protocol (PSIP) conversion method for selectively receiving a digital terrestrial broadcasting transport stream (TS) or a digital satellite broadcasting TS, converting them into a corresponding digital cable broadcasting TS, and outputting the same, comprising:

(a) receiving a program information description (PID) needed for analyzing the terrestrial broadcasting TS or the satellite broadcasting TS, information needed for protocol conversion, and data for other controls from a user;

(b) converting the terrestrial broadcasting TS or the satellite broadcasting TS into an internally processed bit rate format;

(c) filtering the converted terrestrial broadcasting TS or the satellite broadcasting TS using the PID to extract A/V data and PSIP/PSI data from the terrestrial broadcasting TS and extract A/V data and SI/PSI data from the satellite broadcasting TS;

(d) analyzing and converting the extracted PSIP/PSI data or the SI/PSI data into ~~generate~~ the corresponding digital cable broadcasting PSIP/PSI data; and

(e) receiving the digital cable broadcasting PSIP/PSI data in (d) and the extracted A/V data in (c), performing TS multiplexing on them, and outputting them in the digital cable broadcasting TS.

7. (original) The PSIP conversion method of claim 6, further comprising:

including the digital cable broadcasting PSIP data in (d) in the digital cable SI data transmitted to a subscriber through an out-of-band channel, and transmitting them to the subscriber.

8. (original) The PSIP conversion method of claim 6, wherein the multiplexing process in (e) comprises:

amending variations of a program clock reference (PCR), and converting the multiplexed TS according to an output bit rate.

9. (previously presented) A digital cable television broadcasting system for selectively receiving digital terrestrial broadcasting or digital satellite television broadcasting and linking the same to a digital cable broadcasting network in real-time, comprising:

a plurality of first and second broadcasting signal demodulators for demodulating the digital terrestrial broadcasting signals and the digital satellite television broadcasting signals, respectively, and outputting them in terrestrial broadcasting transport streams (TS) and satellite broadcasting TS, respectively;

a plurality of first and second program and system information protocol (PSIP) converters for analyzing the terrestrial broadcasting TS and the satellite broadcasting TS output by the broadcasting signal demodulators, respectively, converting a terrestrial broadcasting PSIP/PSI table and a satellite television broadcasting SI/PSI table for transmitting program and system information into PSIP/PSI tables of a corresponding digital cable television broadcasting standard, respectively, and outputting a cable broadcasting TS;

a plurality of broadcasting signal modulators for modulating the cable broadcasting TS output by the PSIP converters;

a plurality of up-converters for converting the cable broadcasting TS modulated by the broadcasting signal modulators into radio frequency (RF) signals; and

a mixer for mixing the cable broadcasting TS converted by the up-converters, and outputting them to a cable connected to a subscriber.

10. (previously presented) The digital cable television broadcasting system of claim 9, further comprising:

a terrestrial broadcasting antenna for receiving the digital terrestrial broadcasting and outputting corresponding broadcasting signals to the first broadcasting signal demodulator; and

a satellite broadcasting antenna for receiving the digital satellite television broadcasting and outputting corresponding broadcasting signals to the second broadcasting signal demodulator.

11. (previously presented) The digital cable television broadcasting system of claim 9, further comprising:

a PSIP server for receiving digital cable PSIP table information generated by the PSIP converters, and including the same in digital cable SI data to be transmitted to an out-of-band channel;

an out-of-band channel signal modulator for modulating the cable SI data generated by the PSIP server, and transmitting them to a subscriber through the out-of-band channel; and

an out-of-band channel network controller for controlling the cable SI data transmitted to the out-of-band channel signal modulator from the PSIP server.

12. (previously presented) The digital cable television broadcasting system of claim 9, wherein the first PSIP converter comprises:

a protocol data extractor for demultiplexing the terrestrial broadcasting TS and extracting audio/video (A/V) data and PSIP/PSI data from the terrestrial broadcasting TS;

a protocol data converter for using the PSIP/PSI data extracted by the protocol data extractor to generate PSIP/PSI data of a corresponding digital cable television broadcasting standard;

a protocol data inserter for inserting the PSIP/PSI data generated by the protocol data converter into the A/V data extracted by the protocol data extractor through TS multiplexing, and

generating digital cable broadcasting TS; and

a system controller for checking and controlling the protocol data extractor, the protocol data converter, and the protocol data inserter.

13. (previously presented) The digital cable television broadcasting system of claim 9, wherein the second PSIP converter comprises:

a protocol data extractor for demultiplexing the satellite broadcasting TS and extracting A/V data and SI/PSI data from the satellite broadcasting TS;

a protocol data converter for using the SI/PSI data extracted by the protocol data extractor to generate PSIP/PSI data of a corresponding digital cable television broadcasting standard;

a protocol data inserter for inserting the PSIP/PSI data generated by the protocol data converter into the A/V data extracted by the protocol data extractor through TS multiplexing, and generating digital cable broadcasting TS; and

a system controller for checking and controlling the protocol data extractor, the protocol data converter, and the protocol data inserter.